REMARKS

Applicants' invention as recited by claims 1-9 provides a method and system for the delivery of broadcast radio programs via the Internet. Means are provided for replacing commercials present in the program material as simple bit serial streams. These streams contain digitized serialized packeted data without any compression. The packeted data is delivered at a low rate (e.g. several kilo bits a second), as opposed to the much higher rate (e.g. several mega bits a second) required for delivering high quality video MPEG compressed data. This is described in detail by page 4, line 21 of the original specification. Advertisements initially generated at a radio station are identified and replaced by substitute commercials inserted in the simple bit serial streams of digitized packeted data by an Internet hosting service. The Internet's bi-directional and individual connectivity allows selection and transmission of replacement commercials that are of particular interest or relevance to a particular user. Replacement is tailored for the user by reading that user's personal preferences, which are passed to the Internet Audio System during the login process. Demographic information characterizing the user may be maintained and used as a basis for this selection.

The ability to individualize and tailor program content is advantageous for an advertiser, as it allows the advertiser to allocate an advertising budget in a prudent and highly effective manner. Products may be touted to those consumers whose interests, personal characteristics (age, gender, marital status, and the like), location, and other comparable demographic characteristics make them likely to buy that product. On the other hand, the system allows the advertiser not to waste resources in advertising products that a given user would likely not purchase or find appealing.

The replacement of advertisements is completely transparent to the user; such replacements are interposed solely at those points within the flow of program content which are preselected by the program director. The bit stream of Internet audio broadcast carries an information tag which

identifies the insertion point of the replacement advertisement as well as the time duration of the advertisement. The Internet Hosting Service, which may be the Internet Service Provider, selects from its database a commercial that appropriately matches the user's preferences, including demographic data. Each user, whether listening via the Internet or by normal radio transmission, will hear and see advertising at the same point in the program, even though the advertising content to which different users are made privy is differentiated in accordance with user profile, thereby causing different users to hear different advertising content.

Claims 1 – 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over and U.S. Patent No. 5,917,830 to Chen et al. in view of U.S. Patent No. 6,094,677 to Capek et al. and U.S. Patent No. 5,155,591 to Wachob.

Chen et al. discloses a method and apparatus for splicing a secondary packetized data stream, such as a commercial, with a primary packetized data stream, such as a network television program. The method further discloses the delivery of the packetized data stream to an end-user, particularly a delivery via a cable system to a customer thereof.

With respect to claims 1 and 7, the Examiner has indicated that Chen et al. discloses a system and method for substituting advertisements during a broadcast, comprising: (a) generating, digitizing, and storing a plurality of replacement commercials for insertion into the broadcast; (b) marking the broadcast with start and stop times of the commercial; (c) receiving the broadcast; (d) detecting and reading the insertion marker on the broadcast; (e) selecting and substituting (inserting) a replacement commercial into the broadcast at a point corresponding to the insertion marker; and (f) repeating the detection and insertion of replacement commercials throughout the broadcast.

The Examiner has indicated that while Chen et al. uses a network television broadcast as an exemplary use of the invention, it is also disclosed that the invention can be applied for splicing a secondary packetized data stream with a primary packetized data stream. However, this disclosure falls far short of applicants' claimed method, because Chen et al. does not disclose or suggest any

packetized data stream delivered to an Internet hosting service, as required by each of amended claims 1-4 and 7-9.

Chen et al. discloses a method and apparatus for splicing a secondary compressed MPEG packetized data stream, such as a commercial, with a primary packetized data stream, such as a network television program. The packetized data stream is delivered in a high-speed link, such as cable TV or a satellite communication system. Data delivery proceeds at a rate of several mega bits a second (see col. 4, lines 22-24), which feature is not present in an Internet connection.

Clearly a low quality Internet video delivered as a QuickTime or a Media Player is not equivalent to the high quality video transmission of Chen et al. Moreover, in the Chen et al. system, the Time in and Time out are provided in the original compressed MPEG packetized data. On the other hand, with use of that system the cable distribution system may introduce commercials at their own time since Time In and Time Out are externally provided. Compare, for example reference numeral 310 in Fig 3 of Chen et al., and the definition of T in and T out therein at col. 6 lines 66 to col. 7 line 2. In fact, when Time in is indicated in the incoming compressed MPEG data, the cable distribution system of Chen et al. inserts the alternating commercial without having any knowledge of how long a commercial will be and continues to deliver the alternate advertisement in the delivery stream. When the Time out signal is received in the original incoming compressed MPEG data signal, indicating that the original advertisement is complete, the input stream is diverted into a memory storage (see col. 4, line 37) and is retrieved only after the commercial ends. This is the reason why viewing a TV program delivered through two different broadcast routes, for example, Philadelphia and New York, have a time delay and are not synchronous due to differences in the lengths of advertisements delivered. In addition, simulcast programs do not normally match the video when the stations use commercials. For these reasons, the Examiner's position that the presence of Time in and Time out automatically indicates the length of a replacement commercial is respectfully traversed.

Moreover, with Chen et al., insertion of audio information in the compressed MPEG packetized data stream is carried out by inserting the CD or DVD into a <u>video stream</u>, not an audio stream. This results in a blank TV screen; and is readily distinguishable from the process of applicants' amended claims 1-4 and 7-9, which require insertion of an advertisement into a low bit rate uncompressed Internet serial bit stream.

Chen et al. clearly contemplates use of compressed MPEG packetized data streams as a mechanism for delivery of program material to a <u>cable system headend</u>. Moreover, Chen et al. discloses only uni-directional cable transmission to the end subscribers within a given system, all of whom thus receive identical signals. Significantly, Chen et al. does not recognize any functionality that would require bi-directional communication for receiving user preferences or demographic information data to customize advertisements or any advantage that would accrue thereby. Applicant thus submits that there is no motivation in Chen et al. for a system incorporating bi-directionality, let alone any advantageous features or functionality possible with bi-directionality.

Applicants' amended claims 1-4 and 7-9, on the other hand, require the crucial step of connecting a low speed Internet system with an Internet hosting system for delivering program material to a user via the Internet, a step clearly not disclosed or recognized by Chen et al. Connection via the Internet overcomes the significant uni-directional transmission limitation of any Chen et al. cable system, since the Internet affords the missing bi-directionality of communication. The time duration of the replacement commercial exactly matches that of the original broadcast commercial; and there is no need for storage of the original input stream. Advantageously, with the system called for by applicants' claims 1-4 and 7-9, as amended, all listeners to the Internet radio receive output stream data at the same time without any time delay. It is respectfully submitted that the Chen et al. system cannot be properly reconstructed in the absence of applicants' own invention to achieve the objectives accomplished by applicants' claims. Such hindsight reconstruction, which

requires use of the present application as a template, was held to be improper in <u>Sensonics, Inc. v.</u> <u>Aerosonic Corp.</u>, 81 F.3d 1566, 1570, 38 USPQ 2d 1551, 1554 (Fed. Cir. 1996).

Notwithstanding the widespread availability and use of the Internet at the time that the Chen et al. patent application was filed, there is no recognition whatsoever by Chen et al. concerning use of the Internet for delivery of broadcast material. Rather, Chen et al. disclose delivery of high quality video data which is only possible with high bit rate transmissions (mega bits a second) such as digital cable or satellite broadcast (typically at about 155.52 mega bits per sec). Significantly, the Chen et al. system does <u>not</u> employ a connection via the Internet, <u>even for transmitting packetized</u> <u>data to a personal computer.</u> In particular, the only disclosure of a personal computer in Chen et al. is in connection with Fig. 1. It is said that personal computer 174 may be connected to Digital Entertainment Terminal (DET) decoder 168. The DET decodes a packetized data stream received via a coax distribution network, and the signal is seamlessly delivered for display to the subscriber. The coax network, in turn, is fed by optical node unit 146, which supports conversion of information it receives optically into electrical information, as well as accomplishing the required modulation/demodulation. The Chen et al. system thus entails use of an <u>elaborate infrastructure</u> requiring specialized, dedicated hardware, e.g. of the type associated with a cable television system. Applicant's method and system are thus far more easily practiced, using the existing infrastructure of the Internet. The marked simplicity of the Internet-based approach afforded by the method and system of applicant's amended claims 1-4 and 7-9 provides ample basis for patentably distinguishing the Chen et al. system.

Applicants' amended claims 1 and 7 further call for a comparison between the lengths of the original broadcast commercials and the commercials being considered as replacements. The Examiner has correctly recognized that Chen et al. does not explicitly disclose a comparison made to determine whether the duration of the replacement commercial corresponds to the duration of the main commercial being replaced. However, the Examiner has pointed to Chen et al.'s teaching at

col. 1, line 65 to col. 2, line 3, of avoiding discontinuity which results in a non-compliant data stream, and has indicated that such teaching implies the comparison of applicant's claims. Applicant respectfully submits that the purported comparison has not been established as inherent in the cited passage since Time in and Time out are externally generated by the cable distribution system. The latter reads the time in to insert a replacement commercial and plays it regardless of the duration of the original commercial. It then stores the incoming data stream in storage and retrieves it only after the replacement commercial is complete. Null frames are added only to prevent the overflow of the decoder, thereby maintaining continuity during these frame transitions. Surely the Chen et al. teaching of discontinuity avoidance is not equivalent to applicants' required comparison, since the packetized data stream of Chen et al. can be altered so as to retain compliance without the commercials being of equivalent length, and Chen et al. clearly does not teach a requirement to the contrary.

The Examiner has further cited Capek et al. as supporting a comparison of the duration of a break and the duration of a proposed replacement commercial.

Capek et al. discloses methods, apparatuses and computer program products that provide information to a user during delays in retrieving program material in an Internet web browser data request from a remote server of an interactive system connected to a network. The information provided to the user is referred to as an insertion, since it is inserted into the Internet normal data stream by a local server in response to the user requested data that the user is waiting to receive. The Capek et al. method makes use of delays attendant to the vagaries of a network such as the Internet, which cannot be easily predicted, to provide the user with an insertion containing information which may be customized to either the user or the program material requested, or both. It is said that an expected length of delay for the receipt of the user requested data can be made and used as the basis for deciding whether or not to make an insertion. This in no way assures that the data provided by the local server matches the time delay that would occur in receiving the data from

a remote server; and there is no real comparison of time here, since the data receipt time from the remote server is <u>undetermined and only estimated</u> by the local server. Several means are suggested for determining whether the delay is sufficiently long for an insertion, including a perceived actual delay, historical knowledge of delays based on factors such as the time of day, location of the requested program material, and network management information regarding the congestion or traffic within the network. If made, the insertion may continue either until the requested material is received or for a predefined period of time. Capek et al. further discloses that while the insertion is being presented, the retrieved program material may be cached as it is being received. Significantly, Capek et al. does not contemplate the replacement of actual program content by substitute content, such as the <u>substitution</u> of replacement commercials for already extant broadcast radio commercials that applicant's amended claims require. Capek et al. does not suggest that incoming program content be monitored for <u>already extant indicia</u> that mark planned opportunities for inserting advertising material. Instead, Capek et al. merely contemplates <u>addition</u> of material inserted in <u>gaps</u> in the data stream being received. As such, practice of the Capek et al. teaching inevitably <u>extends the length</u> of time spent by the user, due to potential storage of retrieved data during delivery of data from the local server. Such extension is clearly <u>incompatible</u> with radio broadcasting, which conventionally comprises on-going programming including segments of defined length and scheduling.

Furthermore, Capek et al. does not contemplate the use of <u>programming content as a consideration</u> in determining when or if an insertion is to be made. Rather, the determination is made based on an <u>essentially random, opportunistic basis</u>, i.e., the status of the Internet. Clearly, with the Capek et al. system, neither the originator of the programming content (the program director) nor the user/consumer has control. By way of contrast, applicants' invention as recited in amended claims 1-4 and 7-9, calls for <u>replacement of already extant commercials</u>. As such,

replacements are made solely at those points in the on-going program content which are <u>under the control of the originating radio station</u>.

As recognized by the Examiner, Chen et al. method makes no comparison between the durations of the replacement commercial and the main stream commercial, which comparison is required, e.g. by step (j) of each of applicants' amended claims 1 and 7. The Examiner has cited col. 4, lines 43-51; col. 5, lines 23-28; and col. 9, lines 57-61 of the Capek et al. patent as disclosing a determination whether the duration of the insertion point is sufficiently long to allow insertion of a commercial. He then states that one could infer that the duration of each stored replacement commercial is known and used in the determination required by claims 1 and 10. However, step (j) of each of applicant's claims 1 and 10 requires "comparing said read duration time with said associated time lengths stored in said array." The "duration time," in turn, refers back to step (i), which calls for "reading the duration time <u>of said commercial.</u>" Applicant respectfully submits that the comparison proposed by the Examiner is <u>not</u> the comparison required by applicant, because Capek et al.'s duration of the <u>insertion point</u> is altogether different. It is <u>not</u> the <u>fixed, predetermined</u> duration of a commercial, but rather the <u>variable</u> duration of a delay in receiving data, i.e. a time period during which no program material is available as a result of the unpredictability of bandwidth on the Internet.

More particularly, the determinations of time made in Capek et al. are inferential and carry no reasonable expectation of certainty. The determination of whether or not to insert is said to be "based on a variety of factors" (column 9, line 67). The lack of certainty is further revealed by use of such words or phrases in Capek et al. as "<u>expected</u> delay" (column 10, line 12), "<u>estimation</u>" (column 10, line 21), and "<u>approximately</u> the same time" (column 10, line 25) (emphases added). The Examiner has identified the potential for blank time or overwriting if the main stream commercial and its replacement are not of equal duration. On the other hand, the method required by present claim 1 assures selection of a replacement commercial equal in length to the original

commercial. In particular, the duration time determined according to step (i) of claim 1 provides a time certain whereby the selection called for by step (k) can be accomplished.

It is therefore respectfully submitted that the respective concepts of "duration" in the instant application and Capek et al. have been impermissibly confounded in a way based on applicant's own disclosure.

The Examiner has further cited Wachob as disclosing the replacement of advertisements in broadcast based on the length of an impending commercial. Like Chen et al., Wachob employs a conventional cable television system, not the Internet, for disseminating program content. The cable system also delivers compressed MPEG digital packetized video data through cable, optical or satellite live at several mega bits per second rate In the method delineated by present amended claims 1-4 and 7-9, a program with replacement commercials interspersed therein is assembled, e.g. by an Internet Service Provider, and disseminated via the Internet. By way of contrast, the Wachob process requires dissemination of multiple commercials through a cable system to hardware associated with each user. Typically such hardware is located on each user's premises. The time duration of each commercial broadcast by the alternate video source is set for a fixed period by a timer to 15, 30 or 60 seconds as indicated at col. 2, lines 24-28 regardless of the commercial duration of the broadcast program. Inherently, at least one of the commercials is transmitted but not presented to a given user. The advertisement actually presented to a given customer of the system is determined by actuation of a switching system located in the customer's premises. Wachob's system is thus much more cumbersome than applicant's method. It requires dedication of a discrete cable channel for each and every potential replacement advertisement, thereby rendering the channel unavailable for normal broadcast content. The Wachob system thus makes highly inefficient use of the limited bandwidth of a cable system. Whereas the number of possible replacements in applicant's system is easily expanded to a very large number simply by provision of relatively inexpensive mass storage, expansion of the Wachob system is far more difficult. Practical and

economic considerations strongly constrain the feasible repertoire of replacement advertisements in a system constructed in accordance with the Wachob disclosure, since each possible replacement for a given broadcast commercial entails provision of both storage and a separate cable channel for transmitting it to the customer's equipment. By using the capabilities of the Internet, applicant's system avoids the needless complication of any system wherein the selection is effected only at the communication node immediately connected to the user's television, computer, or similar device.

It is respectfully submitted that the combined teachings of the Chen et al., Capek et al. and Wachob references do not disclose or suggest the method delineated by present amended claims 1-4 and 7-9.

Applicants further maintain that any method alleged to be disclosed or suggested by the combination of the Chen et al., Capek et al. and Wachob references must be considered in light of the totality of the disclosure thereof. Applicants respectfully submit that merely locating every element of claims 1-4 and 7-9 in one of the references of a proposed combination is insufficient to render the claim unpatentable as being obvious under 35 USC §103(a), absent a proper motivation to combine. As the Federal Circuit has stated in *In re Rouffet*, 47 USPQ 2d 1453, 1457 (Fed. Cir. 1998),

> ". . . 'virtually all [inventions] are combinations of old elements.' *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698, 218 USPQ 865, 870 (Fed. Cir. 1983); *see also Richdel, Inc. v. Sunspool Corp.*, 714 F.2d 1573, 1579-80, 219 USPQ 8, 12 (Fed. Cir. 1983) ('Most, if not all, inventions are combinations and mostly of old elements.'). Therefore an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.'" *Sensonics, Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 1570, 38 USPQ 2d 1551, 1554 (Fed. Cir. 1996).

Applicants submit that elements of the cited references may neither be included nor excluded from the combined teaching, absent motivation to do so. In the present instance, the Capek et al. reference clearly discloses the step of inserting advertisements into program content at points determined by the vagaries of the Internet. Such insertion is clearly not foreseen by the original creators of program content. Yet apart from applicants' own teaching, there is no evidence of motivation, whether in the cited references or adduced by the Examiner, to preclude this possibility. Applicants respectfully maintain that any method practiced in light of the combined teachings of the cited references must therefore be presumed to include the Capek et al. insertion step. That insertion step would trigger insertion of commercials at random times. The disastrous results caused by insertion of commercials at inopportune times throughout the program would offend the user and discourage advertising support. None of the references recognizes this impediment, and the skilled person would not find motivation in the references otherwise.

In addition, in any method practiced in view of the combined Chen et al., Capek et al., and Wachob teachings, the determination of duration for a replacement commercial is based on the status of the Internet. This criterion makes the determination of replacement commercial duration subject to random events outside the control of the Internet radio program broadcast by a radio station. As previously noted, such random airing of commercials would create a negative impression on users that would likely discourage advertising support. In contrast to any method disclosed by the combined teachings of Chen et al., Capek et al., and Wachob, the method called for by present claims 1-12 effects insertion of replacement commercials solely at those points in the on-going program content which are under the control of the originating radio station.

Further, applicants submit that the combination of Capek et al. with Chen et al. or Wachob suggests the propriety or desirability of inserting commercials at any point during the transmission of programmatic material based on the random, often chaotic status of the Internet, rather than at times during the course of a program that are intentionally chosen by the originator of an Internet

radio program broadcast by a radio station maintaining precise program duration. Creators of broadcast program content generally schedule commercial breaks with great care, based on aesthetic or programmatic considerations. For example, a producer might select a group of songs to be performed sequentially or a single extended musical work and expect the material to be carried without interruption. Similarly, it would be expected that a given scene that is part of a dramatic stage play would not be interrupted. A commercial would not be appropriate at a critical juncture in a sports event. Scheduling of commercials also entails legitimate business concerns. The sale of advertising is a business transaction between an advertiser and either a commercial broadcaster or an Internet provider. In either case, the contractual relationship likely includes scheduling considerations. Highly undesirable intrusions by an inserted commercial would inevitably occur in any system based on the combined teachings of Chen et al., Capek et al., and Wachob. Advertisers would be highly averse to possibility that their wares might be tainted in the marketplace if touted at an inadvertent or inopportune time, contingent on the vagaries of the Internet not under their control.

The systems of Chen et al. and Wachob require high speed connectivity to deliver compressed MPEG video data and the Internet based system of Capek et al lacks predictability of insertions due to the unspecific nature of acquiring data from a remote server. The lack of predictability of the number of inserted commercials and their durations is a further deficiency of any system based on the combined teachings of Chen et al., Capek et al., and Wachob. The insertion aspect of the Capek et al. disclosure suggests that insertions may be made if the status of the Internet causes delays in downloading material requested. A conventional broadcasting schedule includes advertisements, the number and duration of which are pre-determined by the originating radio station. The method and system recited by applicants' claims 1-12 enable the advertiser and the Internet service provider to <u>predict virtually to a certainty the number and duration of replacement advertisements</u>. This level of expectation and predictability facilitates

contractual arrangement for advertising support. Contractual certainty is readily established, since the number and duration of advertising segments, and hence the value of advertising time conveyed can be precisely defined. A method based on the combined teaching of Chen et al., Capek et al., and Wachob lacks such predictability, because the number and duration of commercials to be inserted is not determinable a priori.

The Examiner has noted that Capek et al. has been cited to support the tracking of start and end times of an advertising opportunity said to be inferred by Chen et al. However, the difference in time between the time in and time out is not provided early on to select an appropriate replacement commercial. As a result, the incoming stream invariably has to be stored in order to maintain program continuity, thus compromising the program's overall duration. Capek et al. clearly discloses insertion of advertising material, but never discloses or suggests replacement of existing program content including commercials. Any method practiced in accordance with the combined teaching of Capek et al. and Chen et al. therefore contemplates insertion. As the Federal Circuit has ruled, "[P]rior art references before the tribunal must be read as a whole and consideration must be given where the references diverge and teach away from the claimed invention. . . . Moreover, appellants cannot pick and choose among individual parts of assorted prior art references 'as a mosaic to recreate a facsimile of the claimed invention.' " *Akzo N.V. v. United States Int'l Trade Comm'n*, 1 USPQ 2d 1241, 1246 (Fed. Cir. 1986), *cert. denied*, 482 U.S. 909 (1987). Applicants respectfully submit that the Examiner is engaging in hindsight reconstruction to exclude the insertion aspect of Capek et al., since there is no teaching, even combining *arguendo* the Wachob, Capek et al., and Chen et al. references, to point away from insertion, including insertion at random points within a given program, absent applicants' own teaching. Furthermore, such a random insertion would defeat the objective of disseminating intact program entertainment content inherent in the Chen et al. disclosure, thereby making it inoperative for its intended purpose. As a result, the combined references are submitted to teach away applicants' claimed invention and so cannot serve

as predicates for a prima facie case of obviousness. *Tec Air, Inc. v. Denso Mfg. Mich. Inc.*, 52 USPQ 2d 1294, 1298 (Fed. Cir. 1999) (quoting *In re Sponnoble*, 160 USPQ 237, 244 (C.C.P.A. 1969)).

Accordingly, it is respectfully submitted that the method and system called for by present claims 1 and 7 is not rendered obvious by the combination of Wachob, Chen et al., and Capek et al.

With respect to claim 2, the Examiner has indicated that Chen et al. discloses the marking of start and end times of the insertion point by the broadcast station. However, as discussed hereinabove in connection with the rejection of claims 1 and 7, the combination of Wachob, Chen et al. and Capek et al. suggests random, not controlled insertion of replacement commercials. None of the references suggests insertion of commercials in an Internet radio broadcast, as required by applicants' claim 1, from which claim 2 depends. Applicants thus respectfully submit that any disclosure by Chen et al. concerning marking of start and stop times by a broadcast station does not cure the lack of suggestion in the reference concerning the combination of features required by claim 2, which depends from claim 1 and requires each of the claim 1 limitations.

With respect to claim 3, the Examiner has pointed to disclosures in both Chen et al. and Capek et al. that an audio stream can be digitized to allow for presenting a series of packets in the proper order as one complete commercial. As discussed hereinabove in connection with claims 1, 2, and 7, applicants submit that Chen et al. discloses high speed transmission of compressed MPEG video data, whereas the applicants' claim 3 requires the presence of an uncompressed low Internet speed audio stream. Any audio insertion effected by the Chen et al. system results in a blank screen; the audio information exists in a compressed MPEG video data format. For this reason, the combined teachings of Chen et al. and Capek et al. do not disclose or suggest the combination of features required by independent claim 1, from which claim 3 depends. The citations regarding digitization that the Examiner has identified do not address these deficiencies. While Chen et al. and Wachob contemplate substitute advertisements, they do so in a way that does not afford the

distribution of programming that is customized and distributed in that form to a given user. Instead, as discussed more fully in connection with the rejection of claims 1 and 7, Chen et al. provides only the distribution of a particular commercial that is <u>identical for all users</u> of the cable system, and Wachob requires distribution of multiple commercials, with the final selection not being accomplished strictly by equipment at or near a user's own premises. Any system fashioned in light of the combined teaching of the cited references is thus <u>far more cumbersome to design and operate</u>; it would lack the elegance and simplicity of applicants' system for delivering advertising to a consumer. It is therefore submitted that present claim 3 patentably defines over the art applied.

With respect to claims 4-6, 8, and 9, the Examiner has pointed to Capek et al.'s disclosure of customizing the information to be inserted into the program material.

As recognized by the Examiner, Chen et al. does not explicitly disclose using customer demographics in the selection of a replacement commercial. Applicants submit that the Chen et al. method inherently <u>cannot</u> use individualized customer demographics in the selection. Clearly Chen et al. disclose no means by which such demographic information or user preferences can be conveyed. Moreover, the Chen et al. disclosure provides no means by way of which such information, even if available, could be used in the process of making the selection called for either by step (l) of applicants' claim 1, as further defined by each of dependent claims 4-6, or by step (f) of claim 7, as further defined by each of dependent claims 8 and 9. Even less does the Chen et al. disclosure contemplate any mechanism by which the replacement can be customized for <u>each</u> individual recipient of the modified content. By way of contrast, the bi-directional and individualized connectivity of the Internet provides means that enable this customization to be accomplished in the form recited by claims 4, 8, and 9. That is to say, the present, Internet-based system and method recited by claims 4, 8, and 9 affords the delivery of program content, including commercials that may be specifically targeted for each and every user of the system. Such targeted delivery capability, as well as the desirability thereof, is completely absent from the Chen et al.

teaching. In particular, the Chen et al. teaching is described as being particularly suitable for use at a cable system headend. By its very nature, a cable system provides identical program content to each of its subscribers. While the plural subscribers generally are located in a particular geographical area and so may share certain demographic characteristics, others, such as gender, are highly unlikely to be identical even within a very small area. The Examiner has pointed to PC 174, e.g. in Fig. 1. It is submitted, however, that the device therein disclosed is connected via a cable system; it does not comprise any Internet or comparable communications protocol that is appointed for bi-directional communication. No other disclosure in Chen et al. is cited as disclosing bi-directional use of PC 174 or any other computer in the manner required by applicants' claims. Whereas the Chen et al. disclosure does not address this limitation, the bi-directional and individual connectivity of the Internet allow a system constructed according to claims 1-12 to provide targeted commercial segments having completely individualized content.

While Wachob suggests the possibility of selecting advertising based on a viewer's demographics, the implementation provided relies on a brute-force approach of distributing plural commercials and selecting which is to be provided only after the complication and expense of distribution has already been incurred. Applicants' solution, as delineated by amended claims 4, 8, and 9, overcomes these limitations by use of an Internet-based system not disclosed or suggested by the art applied.

As discussed hereinabove in connection with the rejection of claims 1 and 7, applicants respectfully submit that when combining Wachob, Chen et al., and Capek et al., the totality of the resultant disclosure must be considered. While the Capek et al. patent suggests insertions that may be customized to a user, it also suggests additional features – that the insertions are trigged by random events -- which teach away from the invention, defined by applicants' claims. It is accordingly submitted that modifying Chen et al. in light of Capek et al. and Wachob does not fairly disclose or suggest the invention recited by present claims 4, 8, and 9.

When compared to any method practiced in light of the combined teachings of the cited references, the method called for by present claims 4, 8 and 9 effects insertion of targeted advertising in a more controlled, predictable and tasteful manner, thereby better facilitating consummation of contractual arrangements. In addition, the method of applicants' claims provides for more satisfactory listening and viewing experiences, thereby presenting a program format far more likely to attract advertising revenue. These significant advantages are submitted to provide adequate basis for predicating patentability of amended claims 4, 8 and 9 over the cited references.

Accordingly, reconsideration of the rejection of amended claims 1-4 and 7-9 under 35 U.S.C. §103(a) as being unpatentable over the combination of Chen et al., Capek et al., and Wachob is respectfully requested.

In view of the remarks set forth above, it is submitted that the present application is in allowable condition. Entry of this proposed amendment, reconsideration of the Final Rejection of claims 1-4 and 7-9 and their allowance are, therefore, earnestly solicited.

Respectfully submitted,
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